

National 4 Homework 15

Questions 1, 2, & 4 are Non Calculator

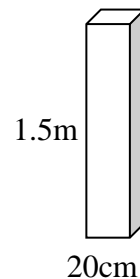
1.
 - a) Write 2.3 million in scientific notation.
 - b) Multiply out and simplify $5(3x-2)+2(5-x)$.
 - c) Calculate $62 \cdot 3 \div 50$.
 - d) Factorise $4p-18$.



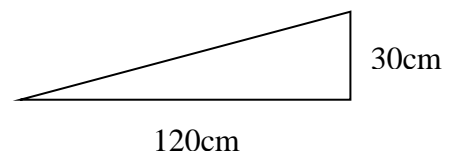
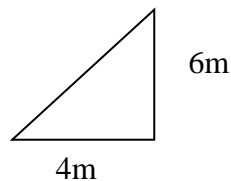
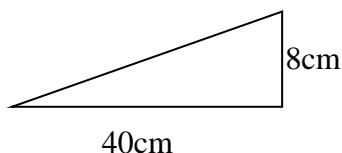
2. A box contains 3 red pens, 5 blue pens, 5 black pens and 2 green pens.
 - a) What is the probability I pick a red pen?
 - b) What is the probability I **do not** pick a black pen?
 - c) I pick out a red pen and do not put it back in the box. What is the probability that the next pen I pick is green?

Give your answers in their simplest form.

3. The post of a new bird table is created as shown. It has a square base, and has a height of 1.5m.
What volume of metal is required to make the post?



4. Write down the gradient of the following slopes.



5. Billy is remodelling his house. He employs an electrician who works for 3 days, a joiner who works for one day and a plumber who works for 2 days. If the total paid to them is £1080 and they are paid in the ratio for days worked, how much will each receive?

6. The Repair Centre charges £12.90 an hour labour.
Max's car requires 5 hours of labour.
He must also pay for the parts used and is charged VAT.
Copy and complete the following garage bill to find the total amount Max owes.

Parts	
5 Hours Labour (@ £12.90 an hour)	
Subtotal	£118.70
VAT @ 20%	
Total	